

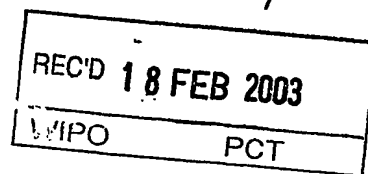
Rec'd PCT/PTO 21 JUL 2004

PCT/AU03/00069



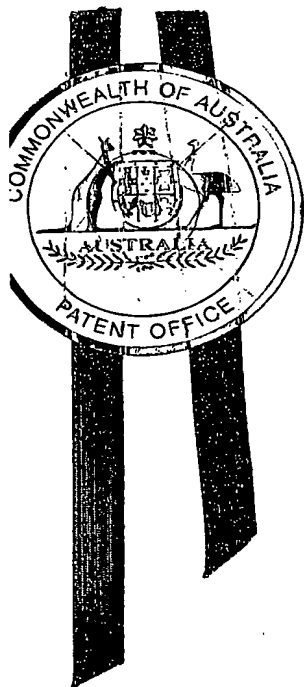
10/502221

[Handwritten signature]



Patent Office
Canberra

I, JONNE YABSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PS 0928 for a patent by JOHN ANDREW KING as filed on 07 March 2002.



WITNESS my hand this
Fifth day of February 2003

[Handwritten signature: J. Yabsley]

JONNE YABSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES

**PRIORITY
DOCUMENT**
SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH RULE 17.1(a) OR (b)

APPLICANT:

JOHN ANDREW KING

NUMBER:

FILED:

AUSTRALIA

THE PATENTS ACT 1990

PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED

"GRAIN THRESHING DEVICE"

The present invention will be described in the following statement:

TITLE
"GRAIN THRESHING DEVICE"

The present invention relates to a grain threshing device.

5 Various types of machinery are used for the purpose of threshing grain. A known problem which many types of such machinery is that due to the mechanical arrangement of the threshing apparatus, the grain can be cracked during the threshing process.

The present invention provides an improved device for threshing grain.

10 In accordance with one aspect of the present invention there is provided a grain threshing device comprising a receptacle arranged to receive a portion of crop head, a shaft rotatably mounted within the receptacle and one or more flexible arm members extending from the shaft, wherein the crop head is placed within the receptacle and rotation of the shaft and the flexible arm members causes the arm members to strike
15 the crop head in the receptacle to separate the grain from the crop head.

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is an upper perspective view of a grain threshing device in accordance with the present invention with a portion of the vessel cut away.

20 Referring to the Figure, there is shown a grain threshing device 10. The grain threshing device 10 comprises a receptacle 12 in the form of a cylindrical vessel 14. The cylindrical vessel 14 includes a first end 18 through which grain head may be received and a suitably sized mesh 24 across an open second end 20.

The grain threshing device 10 includes a rotatably mounted shaft 22 arranged to extend along a central longitudinal axis of the cylindrical vessel 14 from the first end 18 to the second end 20.

5 The shaft 22 is provided with a mounting means 16 for securing a plurality of arm members 28 to the shaft 22. The mounting means 16 is arranged to extend along a portion of the shaft 22 within the vessel 14 and includes a plurality of transversely extending portions 29. An arm member 28 is secured to each of the transversely extending portions 29 such that the arm members 28 are arranged to extend transversely to the shaft member 22. The arm members are constructed of a flexible material such as rubber and are secured to the transversely extending portions 29 by any suitable means, such as by bolts provided adjacent outer ends of the transversely extending portions 29 as shown in Figure 1.

10 The cylindrical vessel 14 is also provided with a plurality of inwardly protruding ribs 30. The inwardly protruding ribs 30 are arranged longitudinally at regular angular intervals around the inner surface of the cylindrical vessel 14. The arrangement of the inwardly protruding ribs 30 and the arm members 28 is such that outer ends of the arm members 28 strike the inwardly protruding ribs 30 when the shaft 22 is rotated.

15 The shaft 22 is arranged to be engageable with a drive means (not shown). The drive means may be any device suitable for rotating the shaft 22.

20 The mesh 24 may also be removable from the cylindrical vessel 14 so that different sized mesh may be used for different grain crops.

A collecting vessel (not shown) is provided below the mesh 24 to collect the separated grain.

In use, the crop head is removed and placed into the cylindrical vessel 14. The drive means is activated to rotate the shaft 22 and arm members 28. The action of the arm members 28 striking the crop head and the ribs 30 act to thresh the crop head. The separated grain then falls through the mesh 24 and into the collecting vessel.

5 Modifications and variations as would be apparent to a skilled addressee are deemed to be within the scope of the present invention

DATED THIS 6TH DAY OF MARCH 2002.

10

JOHN ANDREW KING
By his Patent Attorneys
LORD & COMPANY
PERTH, WESTERN AUSTRALIA.

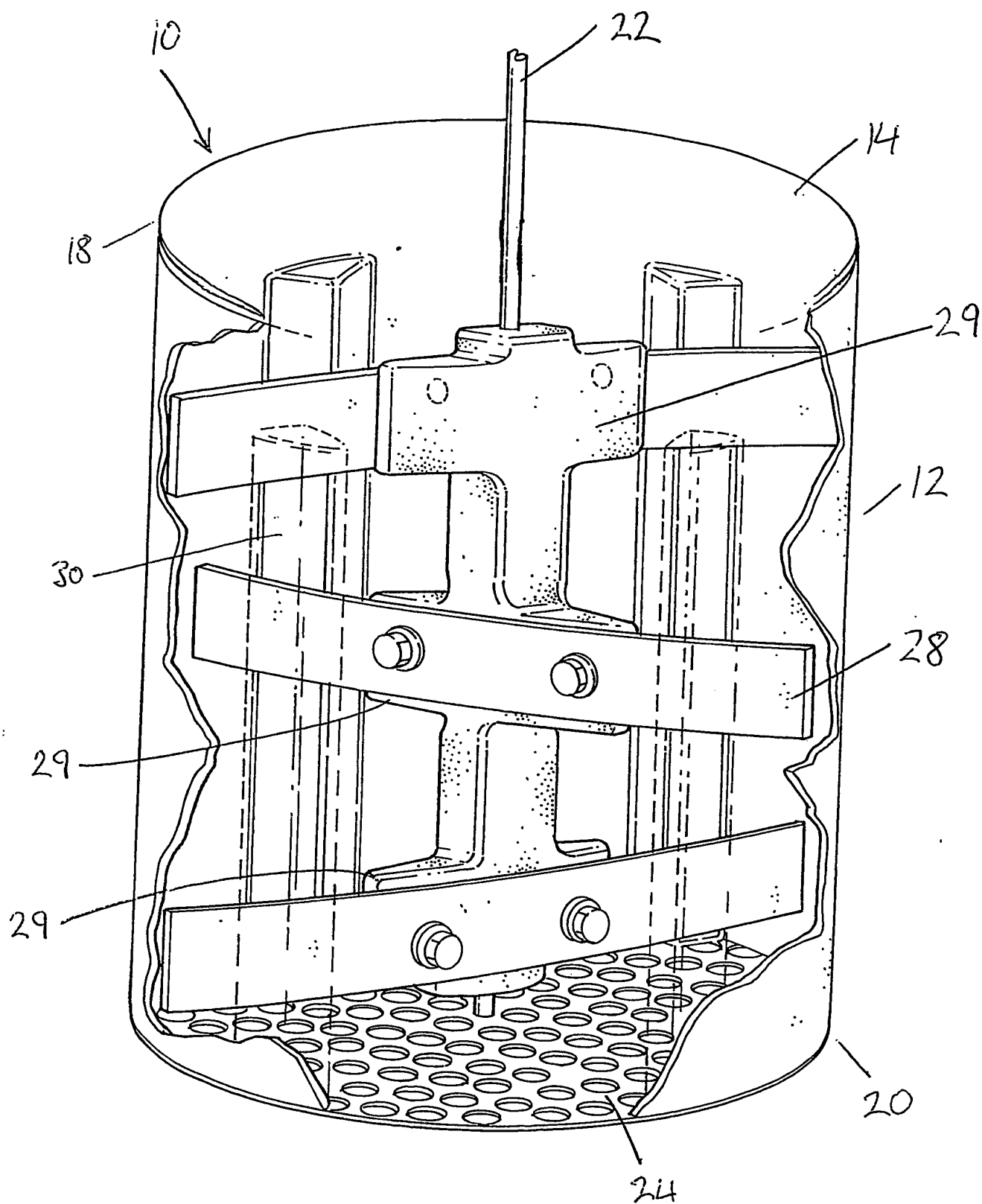


Fig 1